

Work Order ID 149052

Tuesday, July 19, 2016 10:17:32 AM

~~*149052*~~ ~~PRELIMINARY ISSUE~~

Item ID: D206-642-522PHI

Accept

N900040100

Setup Start

NS1

Revision ID: PRELIM

Item Name: Skidtube RH, High Gear, Standard Wearplates, DART (Apical) Tri-Bag Float Compatible

Stop *NS2*

Start Date: 7/19/2016 Start Qty: 1.00

1

Cust Item ID:

Required Date: 7/27/2016 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

DAS

21

Date: JUL 19 2016

Tooling:

Date:

Run Start

NR1

QC:

9-89

Date:

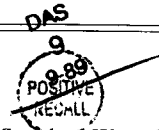
SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
IIN-D206-642	Q								
100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc. Control -USB or Paperwork	Photocopy bluefile and create labels per PPP D206-642-512								
110	Pick Kit	0.00							
110	Packaging								
Packaging	Memo	0.00							
120	QC4- 100% Inspect kits for completeness	0.00							
120	QC								
Quality Control	Memo	0.01							

DAS
6
9-89

JUL 26 2016

0.00 2 6 2016

522 PAI
CHG006
001DAS
21
9-89DAS
27
9-89

AUG 04 2016

D
RDAS
28
9-89

JUL 27 2016

DAS
27
9-89

AUG 04 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval																																																									
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

Work Order ID 149052

149052

Page 2

Tuesday, July 19, 2016 10:17:32 AM

Item ID: D206-642-522PHI
 Revision ID: PRELIM
 Item Name: Skidtube RH,High Gear, Standard Wearplates, DART (Apical) Tri-Bag Float Compatible
 Start Date: 7/19/2016 Start Qty: 1.00
 Required Date: 7/27/2016 Req'd Qty: 1.00
 Reference:

Accept

N900040100

Setup Start ***NS1***
 Stop ***NS2***

Cust Item ID:
 Customer:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***
 Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Packaging	0.00							
130									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D206-642-512								
	Location: <u>offshore</u>								
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.02							
Quality Control									

68-8
82
SVC

SMB
16/8/5

DAS
21
9-89

AUG 05 2016

POSITIVE RECALL
 EFFECTIVE 160722
 RELEASED 9 DATE 160805

DAS
21
9-89
AUG 05 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																											
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval																																																							
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																							
Root Cause		FAULT CATEGORY																																																													
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :	
Misidentified ☐	Past Due ☐																																																														

Picklist Print

Tuesday, July 19, 2016 10:17:35 AM

Page 1

Work Order ID: 149052

149052

Parent Item: D206-642-522PHI

D206-642-522PHI

Parent Item Name: Skidtube RH, High Gear, Standard Wearplates, DART (Apical) Tri-Bag Float
Compatible

Start Date: 7/19/2016

Required Date: 7/27/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 14.09.23 NEW ISSUE LL VERF:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN5C15A *AN5C15A* Bolt		Purchased	No				Each	23.0000	**	1			PC DAS 28 9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

over003

20

M135058

20

ST337

3

M130466

3

AN5C34A

Purchased

No

AN5C34A

Bolt

Each

104.0000

**

2

PC DAS 28 9-89

Location

Loc Qty

Loc Code

FG

2

18918

2

over004

88

m131855

8

m131856

8

m132169

8

m132381

8

m132522

8

m132674

8

m133332

8

m133917

8

m133920

8

m133921

8

m134131

8

ST336

14

m130033

14

DAS
27
9-89

JUL 27 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			Completed By
					Lead hand / Supervisor Approval Verification
					QC / QA Coordinator Approval
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Picklist Print

Tuesday, July 19, 2016 10:17:35 AM

Page 2

Work Order ID: 149052

149052

Parent Item: D206-642-522PHI

D206-642-522PHI

Parent Item Name: Skidtube RH, High Gear, Standard Wearplates, DART (Apical) Tri-Bag Float
Compatible

Start Date: 7/19/2016

Required Date: 7/27/2016

D206-648-013PHI

Manufactured No

Each

0.0000

Start Qty: 1.00

Required Qty: 1.00

D206-648-013PHI

Ground Handling Wheel Modification

D3672-7

DAS

Manufactured No

Each

803.0000

D3672-7

27

9-89

Washer, Phenolic

**

**

DAS

28

9-89

DAS

28

9-89

Location

Loc Qty

Loc Code

FG

40

129987

25

133986

15

ST049

263

142572

263

ST051A

500

147220

500

Each

352.0000

**

NAS1149C0532R

Purchased

No

NAS1149C0532R

WASHER

Location

Loc Qty

Loc Code

GA

60

116513

60

ST260a

200

m135056

200

ST266

92

m134756

92

Each

0.0000

**

D2932-2PHI

Manufactured

No

D2932-2PHI

Saddle RH Out, 206

DAS

27

9-89

D2933-2PHI

Manufactured

No

D2933-2PHI

Saddle RH In, 206

DAS

27

9-89

**

DAS

28

9-89

JUL 27 2016

DAS

28

9-89

Tuesday, July 19, 2016 10:17:35 AM

Shop Packet Print

Page 2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐	Design ☐	Doc/Data ☐	Equip/Tooling ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Handling/Pre ☐	Material ☐	Internal Transport ☐	Tribal Knowledge ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
LOA ☐	Substation ☐	Past Expiry Date ☐	Misidentified ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
				Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
				Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
				Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
				Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
				Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
				Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
				Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
				OTHER : ☐			

Picklist Print

Tuesday, July 19, 2016 10:17:35 AM

Page 3

Work Order ID: 149052

149052

Parent Item: D206-642-522PHI

D206-642-522PHI

Parent Item Name: Skidtube RH, High Gear, Standard Wearplates, DART (Apical) Tri-Bag Float
Compatible

Start Date: 7/19/2016

Required Date: 7/27/2016

D2938-2PHI

Manufactured No

Each

0.0000

Start Qty: 1.00

Required Qty: 1.00

D2938-2PHI

Saddle RH Out, 206

D2939-2PHI

Manufactured No

Each

0.0000

D2939-2PHI

Saddle RH In, 206

AN3C41A

Purchased No

Each

302.0000

AN3C41A

Bolt

Location

Loc Qty

Loc Code

FG

10

122843

5

124975

1

m130081

4

OVER002

225

m132169

75

m132381

75

m132522

75

ST347

67

131651

67

D2652

Manufactured No

Each

477.0000

D2652

Bushing

Location

Loc Qty

Loc Code

FG

45

31985

45

ST009

124

147559

124

ST012a

308

145959

308

DAS
28
9-89

XB 147 339 PC

DAS
28
9-89

XB 147 244 PC

DAS
28
9-89

PC

DAS
27
9-89

DAS
28
9-89

PC

DAS
27
9-89

JUL 27 2016

16

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Picklist Print

Tuesday, July 19, 2016 10:17:35 AM

Page 4

Work Order ID: 149052

149052

Parent Item: D206-642-522PHI

D206-642-522PHI

Parent Item Name: Skidtube RH, High Gear, Standard Wearplates, DART (Apical) Tri-Bag Float
Compatible

Start Date: 7/19/2016

Required Date: 7/27/2016

MS21043-3

Purchased

No

Each

976.0000

Start Qty: 1.00

Required Qty: 1.00

MS21043-3

Nut

**

20

DAS
28
9-89

RC

Location

Loc Qty

Loc Code

FG	80	
103691	80	
FP001	11	
m130673	11	
GA	237	
m133990	237	
OVER007	400	
m135058	400	20
ST302	142	
m134861	142	
ST304	106	
m131340	106	

DAS
27
9-89

AN5C11A

Purchased

No

Each

116.0000

AN5C11A

Bolt

**

4

DAS
28
9-89

PC

Location

Loc Qty

Loc Code

FG	4	
103715	4	
over003	40	
M135058	40	
ST338	72	
M131305	22	
M131624	50	4

DAS
27
9-89

JUL 27 7:15 PM

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																

Picklist Print

Tuesday, July 19, 2016 10:17:35 AM

Page 5

Work Order ID: 149052

149052

Parent Item: D206-642-522PHI

D206-642-522PHI

Parent Item Name: Skidtube RH, High Gear, Standard Wearplates, DART (Apical) Tri-Bag Float
Compatible

Start Date: 7/19/2016

Required Date: 7/27/2016

AN4C6A

Purchased No

Each 345.0000

Start Qty: 1.00

Required Qty: 1.00

AN4C6A

Bolt

**

12

DAS
28
9-89

PC

Location

Loc Qty

Loc Code

FG	14	
103344	4	
121657	10	
ST345	331	
m134502	6	
m134861	75	
m134955	150	
m135127	100	

DAS
27
9-89

12

D3672-3

Manufactured No

Each 717.0000

**

24

DAS
28
9-89

PC

D3672-3

Washer, Phenolic

Location

Loc Qty

Loc Code

FG	100	
133083	52	
134449	48	
FP001	213	
132639	213	
ST049	404	
142571	13	
146277	391	

DAS
27
9-89

24

JUL 27 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____	

Picklist Print

Tuesday, July 19, 2016 10:17:35 AM

Page 6

Work Order ID: 149052

149052

Parent Item: D206-642-522PHI

D206-642-522PHI

Parent Item Name: Skidtube RH, High Gear, Standard Wearplates, DART (Apical) Tri-Bag Float
Compatible

Start Date: 7/19/2016

Required Date: 7/27/2016

NAS1149C0432R

Purchased

No

Each

977.0000

Start Qty: 1.00

Required Qty: 1.00

NAS1149C0432R

WASHER

**

24

X M135297

DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

GA	801
m125807	427
m134676	374
ST266	176
m134676	176

MS21043-4

Purchased

No

Each

753.0000

12

MS21043-4

Nut

**

JRC DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

FG	40
104603	40
GA	17
m132803	17
OVER007	300
m134754	300
ST302	396
m134502	96
m134943	300

12

JUL 27 2016

D206642-SG1PHI GA

DAS
27
9-89

1x

B149741

DAS
28
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause				FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER : _____							
Misidentified	☐	Past Due	☐								

Picklist Print

Tuesday, July 19, 2016 10:17:35 AM

Page 7

Work Order ID: 149052

149052

Parent Item: D206-642-522PHI

D206-642-522PHI

Parent Item Name: Skidtube RH, High Gear, Standard Wearplates, DART (Apical) Tri-Bag Float
Compatible

Start Date: 7/19/2016

Required Date: 7/27/2016

D3456-1

Manufactured No

Each

87.0000

Start Qty: 1.00

Required Qty: 1.00

D3456-1

Washer

**

DAS

28

9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

FG

7

25701

7

ST037

5

144158

5

ST038A

75

147066

25

147799

50

D3457-1

Manufactured No

Each

108.0000

D3457-1

Washer

**

DAS

28

9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

FG

10

32409

10

ST037

98

145625

98

D2712

Manufactured No

Each

309.0000

D2712

Set Screw

**

DAS

28

9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

FG

55

29962

55

ST009

154

140532

44

141690

100

89929

10

ST012a

100

147570

50

147801

50

JUL 27 2016

Tuesday, July 19, 2016 10:17:36 AM

Shop Packet Print

Page 7

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐	Design ☐	Doc/Data ☐	Equip/Tooling ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Handling/Pre ☐	Material ☐	Internal Transport ☐	Tribal Knowledge ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
LOA ☐	Substation ☐	Past Expiry Date ☐	Misidentified ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
				Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
				Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
				Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
				Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
				Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
				Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
				Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐				OTHER : ☐			

Picklist Print

Tuesday, July 19, 2016 10:17:36 AM

Page 8

Work Order ID: 149052

149052

Parent Item: D206-642-522PHI

D206-642-522PHI

Parent Item Name: Skidtube RH,High Gear, Standard Wearplates, DART (Apical) Tri-Bag Float
Compatible

Start Date: 7/19/2016

Required Date: 7/27/2016

D2934 Manufactured No

Each 58.0000

Start Qty: 1.00

Required Qty: 1.00

D2934

Saddle Spacer

**

PC DAS 28 9-89

DAS 27 9-89

Location

Loc Qty

Loc Code

FG

6

31929

6

ST014

52

~~141428~~

12

147488

40

D2935 Manufactured No

Each 69.0000

D2935

Saddle Spacer

**

PC DAS 28 9-89

DAS 27 9-89

Location

Loc Qty

Loc Code

FG

6

31793

6

ST014

63

~~146008~~

33

147574

30

JUL 27 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER : _____							

Picklist Print

Tuesday, July 19, 2016 10:17:36 AM

Page 9

Work Order ID: 149052

149052

Parent Item: D206-642-522PHI

D206-642-522PHI

Parent Item Name: Skidtube RH, High Gear, Standard Wearplates, DART (Apical) Tri-Bag Float
Compatible

Start Date: 7/19/2016

Required Date: 7/27/2016

AN3C36A

Purchased

No

Each

Start Qty: 1.00
240.0000

Required Qty: 1.00

AN3C36A

Bolt

**

3X M13S310 PC DAS 28 9-89

Location	Loc Qty	Loc Code
FG	47	
101261	4	
122204	2	
m131367	1	
m132169	40	
FP001	80	
m131856	1	
m132381	79	
OVER002	80	
m133916	80	
ST347	33	
m132522	33	

DAS 27 9-89

AN3C35A

Purchased

No

Each

47.0000

AN3C35A

Bolt

**

3 PC DAS 28 9-89

Location	Loc Qty	Loc Code
FG	4	
18914	4	
ST347	43	
M132317	18	
M133694	25	

DAS 27 9-89

JUL 27 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

Picklist Print

Tuesday, July 19, 2016 10:17:36 AM

Page 10

Work Order ID: 149052

149052

Parent Item: D206-642-522PHI

D206-642-522PHI

Parent Item Name: Skidtube RH, High Gear, Standard Wearplates, DART (Apical) Tri-Bag Float
Compatible

Start Date: 7/19/2016

Required Date: 7/27/2016

NAS1149C0332R

Purchased

No

Each

3,118.000

Start Qty: 1.00
24

Required Qty: 1.00

NAS1149C0332R

WASHER

**

PC
DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

FP001

1686

m135046

1686

GA

141

m133284

141

ST266

1291

m134736

1291

Each

992.0000

24

**

PC
DAS
28
9-89

D3672-1

Manufactured

No

D3672-1

Washer, Phenolic

Location

Loc Qty

Loc Code

FG

10

85222

10

FP001

482

112218

8

134785

474

ST049

500

147077

500

Each

35.0000

2

**

PC
DAS
28
9-89

D3396-3

Manufactured

No

D3396-3

Bushings

Location

Loc Qty

Loc Code

ST034

35

132598

12

147439

23

DAS
27
9-89

2

JUL 27 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause				FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER : _____							
Misidentified	☐	Past Due	☐								

Picklist Print

Tuesday, July 19, 2016 10:17:36 AM

Page 11

Work Order ID: 149052

149052

Parent Item: D206-642-522PHI

D206-642-522PHI

Parent Item Name: Skidtube RH, High Gear, Standard Wearplates, DART (Apical) Tri-Bag Float Compatible

Start Date: 7/19/2016

Required Date: 7/27/2016

AN5C35A

Purchased No

Each 61.0000

Start Qty: 1.00

Required Qty: 1.00

AN5C35A

Bolt

**

PC DAS 28 9-89

DAS 27 9-89

Location

Loc Qty

Loc Code

ST336

61

M129871

61

Each

123.0000

2

**

PC DAS 28 9-89

AN5C32A

Purchased No

AN5C32A

BOLT

Location

Loc Qty

Loc Code

FG

4

18918

4

over004

100

131650

100

ST336

19

m132102

19

Each

162.0000

4

**

PC DAS 28 9-89

MS21043-5

Purchased No

MS21043-5

Nut

Location

Loc Qty

Loc Code

FG

20

101418

20

GA

76

116548

76

ST302

66

m135157

66

4

DAS 27 9-89

JUL 27 2016

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																																																																	
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																																																																	
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																																																																	
Large Fab ☐	Composite ☐	Supplier ☐																																																																		
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval																																																																
Description Work Order Deviation		Disposition		Completed By																																																																
				Lead hand / Supervisor Approval Verification																																																																
				QC / QA Coordinator Approval																																																																
Root Cause <table style="width:100%; border: none;"> <tr> <td style="border: none;">Environment ☐</td> <td style="border: none;">No Re-verification ☐</td> </tr> <tr> <td style="border: none;">Design ☐</td> <td style="border: none;">Operator ☐</td> </tr> <tr> <td style="border: none;">Doc/Data ☐</td> <td style="border: none;">Offset/Setup ☐</td> </tr> <tr> <td style="border: none;">Equip/Tooling ☐</td> <td style="border: none;">Supplier ☐</td> </tr> <tr> <td style="border: none;">Handling/Pre ☐</td> <td style="border: none;">Training ☐</td> </tr> <tr> <td style="border: none;">Material ☐</td> <td style="border: none;">Use for Testing ☐</td> </tr> <tr> <td style="border: none;">Internal Transport ☐</td> <td style="border: none;">Poor Information ☐</td> </tr> <tr> <td style="border: none;">Tribal Knowledge ☐</td> <td style="border: none;">Rushing ☐</td> </tr> <tr> <td style="border: none;">LOA ☐</td> <td style="border: none;">Product Improvement ☐</td> </tr> <tr> <td style="border: none;">Substation ☐</td> <td style="border: none;">Process Improvement ☐</td> </tr> <tr> <td style="border: none;">Past Expiry Date ☐</td> <td style="border: none;">Manufacturing Process ☐</td> </tr> <tr> <td style="border: none;">Misidentified ☐</td> <td style="border: none;">Past Due ☐</td> </tr> </table>		Environment ☐	No Re-verification ☐	Design ☐	Operator ☐	Doc/Data ☐	Offset/Setup ☐	Equip/Tooling ☐	Supplier ☐	Handling/Pre ☐	Training ☐	Material ☐	Use for Testing ☐	Internal Transport ☐	Poor Information ☐	Tribal Knowledge ☐	Rushing ☐	LOA ☐	Product Improvement ☐	Substation ☐	Process Improvement ☐	Past Expiry Date ☐	Manufacturing Process ☐	Misidentified ☐	Past Due ☐	FAULT CATEGORY <table style="width:100%; border: none;"> <tr> <td style="border: none;">Pressure/Forced ☐</td> <td style="border: none;">Temperature/Cure ☐</td> <td style="border: none;">Power Loss/Surge ☐</td> <td style="border: none;">Positioned Wrong ☐</td> </tr> <tr> <td style="border: none;">Bending ☐</td> <td style="border: none;">Set-up ☐</td> <td style="border: none;">Folio/Program ☐</td> <td style="border: none;">Outside Dimensions ☐</td> </tr> <tr> <td style="border: none;">Centre Not Concentric ☐</td> <td style="border: none;">BOM/Route ☐</td> <td style="border: none;">Grain ☐</td> <td style="border: none;">Over/Under tolerance ☐</td> </tr> <tr> <td style="border: none;">Cracks ☐</td> <td style="border: none;">Broken/Damage/Defect ☐</td> <td style="border: none;">Weld ☐</td> <td style="border: none;">Part Incorrect ☐</td> </tr> <tr> <td style="border: none;">Crimp/Kink/Ripple/Wave ☐</td> <td style="border: none;">Inspection Incomplete/Unqualified ☐</td> <td style="border: none;">Wrong Stock Pulled ☐</td> <td style="border: none;">Part Lost/Missing ☐</td> </tr> <tr> <td style="border: none;">Cuffs ☐</td> <td style="border: none;">Contamination ☐</td> <td style="border: none;">Out of Sequence ☐</td> <td style="border: none;">Part Moved ☐</td> </tr> <tr> <td style="border: none;">Crushing ☐</td> <td style="border: none;">Countersink ☐</td> <td style="border: none;">Off-set ☐</td> <td style="border: none;">Drawing ☐</td> </tr> <tr> <td style="border: none;">Heat Treat ☐</td> <td style="border: none;">Cut Too Short ☐</td> <td style="border: none;">Mislabeled ☐</td> <td style="border: none;">Finish ☐</td> </tr> <tr> <td style="border: none;">Wave/Twist in Tube ☐</td> <td style="border: none;">Instructions Incomplete/Unclear ☐</td> <td style="border: none;">Fit/Function ☐</td> <td style="border: none;">Misread ☐</td> </tr> <tr> <td style="border: none;">Marks/Chatter ☐</td> <td style="border: none;">Drill Holes ☐</td> <td style="border: none;">Misaligned/off center ☐</td> <td style="border: none;">Turning Sequence ☐</td> </tr> </table>			Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Environment ☐	No Re-verification ☐																																																																			
Design ☐	Operator ☐																																																																			
Doc/Data ☐	Offset/Setup ☐																																																																			
Equip/Tooling ☐	Supplier ☐																																																																			
Handling/Pre ☐	Training ☐																																																																			
Material ☐	Use for Testing ☐																																																																			
Internal Transport ☐	Poor Information ☐																																																																			
Tribal Knowledge ☐	Rushing ☐																																																																			
LOA ☐	Product Improvement ☐																																																																			
Substation ☐	Process Improvement ☐																																																																			
Past Expiry Date ☐	Manufacturing Process ☐																																																																			
Misidentified ☐	Past Due ☐																																																																			
Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐																																																																	
Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐																																																																	
Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐																																																																	
Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐																																																																	
Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐																																																																	
Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐																																																																	
Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐																																																																	
Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐																																																																	
Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐																																																																	
Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐																																																																	
OTHER : _____																																																																				

ITEM	Qty -521	Qty -522	Qty -561	Part Number	Description
	X			D206-642-521	FLOAT SKIDTUBE INSTALLATION, LH
		X		D206-642-522	FLOAT SKIDTUBE INSTALLATION, RH
			X	D206-642-561	FLOAT SKIDTUBE
10	8	8		AN3C41A	BOLT
11	16	16		D2652	BUSHING
12A	8	8		MS21043-3	NUT
12B	16	16		D3672-7	WASHER
13	4	4		AN5C11A (or AN5C12A)	BOLT (2)
14	4	4		AN5C11A (or AN5C13A)	* BOLT (2)
15A	8	8		NAS1149C0532R	WASHER
15B	8	8		D3672-7	WASHER
16	12	12		AN4C6A	BOLT
17A	24	24		D3672-3	WASHER
17B	24	24		NAS1149C0432R	WASHER
18	12	12		MS21043-4	NUT
37	10	10		D2712	SET SCREW
38	2	2		D2934	SADDLE SPACER
39	2	2		D2935	SADDLE SPACER
50	9	9		AN3C36A	BOLT
51	3	3		AN3C35A	BOLT
52	24	24		NAS1149C0332R	WASHER
53	24	24		D3672-1	WASHER
54	12	12		MS21043-3	NUT
55	2	2		D3396-3	SPACER
56A	1	1		AN5C35A	BOLT
56B	1	1		AN5C15A	BOLT
60	2	2		AN5C32A	BOLT
61	2	2		AN5C34A	BOLT
62	4	4		MS21043-5	NUT

NOTES: (1) DENOTES THAT PART IS INCLUDED WITH D3274-045 ASSEMBLY ABOVE

(2) CHOICE OF BOLT WILL DEPEND ON CROSSTUBE (SEE INSTALLATION PROCEDURE)

DESIGN	AK	DART AEROSPACE USA, INC. EUGENE, OR	
DRAWN	AK		
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9749	SHEET 2 OF 3
APPROVED		TITLE	SCALE
DE APPR.		ADD -521/-522/-561 SKIDTUBES NTS	
DATE	16.05.30	COPYRIGHT © 2016 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

REFERENCE ONLY**INSTALLATION:**

INSTALL D206-642-521/-522 SKIDTUBE INSTALLATIONS PER SECTION 3.3 OF IIN-D206-642 REV. Q.

WEIGHT AND BALANCE:

THE WEIGHT AND BALANCE TABLES IN SECTION 5.2.1/5.2.2 OF IIN-D206-642 REV. Q AND SECTION 3.10.2 OF ICA-D206-642 REV. 6 ARE AMENDED TO ADD D206-642-521/-522 CONFIGURATIONS AS SHOWN BELOW:

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D206-642-521 206L/L1/L3/L4 HIGH FLOAT, LH	36.4 lb 16.5 kg	104.1 in 2.64 m	3789 in lb 43.6 m kg	-43.0 in -1.09 m	-1565 in lb -18.0 m kg
D206-642-522 206L/L1/L3/L4 HIGH FLOAT, RH	36.4 lb 16.5 kg	104.1 in 2.64 m	3789 in lb 43.6 m kg	43.0 in 1.09 m	1565 in lb 18.0 m kg
D206-642-521 407 HIGH FLOAT, LH	36.4 lb 16.5 kg	104.1 in 2.64 m	3789 in lb 43.6 m kg	-47.0 in -1.19 m	-1711 in lb -19.6 m kg
D206-642-522 407 HIGH FLOAT, RH	36.4 lb 16.5 kg	104.1 in 2.64 m	3789 in lb 43.6 m kg	47.0 in 1.19 m	1711 in lb 19.6 m kg

MAINTENANCE:

THE NEW D206-642-521/-522/-561 FLOAT SKIDTUBES SHOULD BE MAINTAINED PER ICA-D206-642 REV. 6, OR LATER APPROVED REVISION.

DESIGN	AK	DART AEROSPACE USA, INC. EUGENE, OR	
DRAWN	AK		
CHECKED	AK	DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9749	SHEET 3 OF 3
APPROVED	AK	TITLE	SCALE
DE APPR.	AK	ADD -521/-522/-561 SKIDTUBES	NTS
DATE	16.05.30	COPYRIGHT © 2016 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D206-642 REV. Q AND INSTRUCTIONS FOR CONTINUED
AIRWORTHINESS ICA-D206-642 REV. 6 OR LATER APPROVED REVISION

REF. FAA STC: SA00475SE

REF. TCCA STC: SH98-4

REF. EASA STC: EASA.IM.R.S.01320

PURPOSE:

TO ADD D206-642-521/-522 SKIDTUBE INSTALLATIONS WITH WEARPADS ONLY AS
PREFERRED BY SOME CUSTOMERS.

PARTS LIST:

PARTS LIST OF SECTION 4.7 OF IIN-D206-642 REV. Q AND SECTION 32.17 OF ICA-D206-642
REV. 6 IS AMENDED AS SHOWN BELOW TO REFLECT THE ADDITION OF D206-642-521/-522/-
561 CONFIGURATIONS.

ITEM	Qty -521	Qty -522	Qty -561	Part Number	Description
	X			D206-642-521	FLOAT SKIDTUBE INSTALLATION, LH
		X		D206-642-522	FLOAT SKIDTUBE INSTALLATION, RH
	1	1	X	D206-642-561	FLOAT SKIDTUBE
	1	1		D206-648-013	GROUND HANDLING KIT
1			1	D3274-045	SKIDTUBE ASSEMBLY
3			1	D2646	* AFT CAP (1)
4			2	AN3C4A	* BOLT (1)
5A			2	NAS1149C0332R	* WASHER (1)
5B			2	D3672-1	* WASHER (1)
20A			9	D3537-9	* WEARPAD (1)
21A			1	D3537-11	* WEARPAD (1)
26A			40	AN3C4A	* BOLT (1)
26B			40	NAS1149C0332R	* WASHER (1)
26C			40	ALS7-1032-130	* INSERT (1)
34			1	MS27039C4-06	* SCREW (1)
35			1	NAS1149C0463	* WASHER (1)
6	1			D2932-1	SADDLE, FWD OUT, LH
6		1		D2932-2	SADDLE, FWD OUT, RH
7	1			D2933-1	SADDLE, FWD IN, LH
7		1		D2933-2	SADDLE, FWD IN, RH
8	1			D2938-1	SADDLE, AFT OUT, LH
8		1		D2938-2	SADDLE, AFT OUT, RH
9	1			D2939-1	SADDLE, AFT IN, LH
9		1		D2939-2	SADDLE, AFT IN, RH

A	NEW ISSUE	AK	16.05.30
REV.	DESCRIPTION		BY DATE
DESIGN	AK	DART AEROSPACE USA, INC. EUGENE, OR	
DRAWN	AK		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9749	SHEET 1 OF 3
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	ADD -521/-522/-561 SKIDTUBES NTS	
DATE	16.05.30	COPYRIGHT © 2016 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

149052 PRELIMINARY ISSUE

Tuesday, July 19, 2016 10:17:32 AM

Accept

N9000401 00

Setup Start ***NS1***

Stop *NS2*

Start Date: 7/19/2016	Start Qty: 1.00	*1*
Required Date: 7/27/2016	Req'd Qty: 1.00	*1*

Cust Item ID:

Customer:

Run Start *NR1*

Approvals:

Process Plan: _____	DAS 21	Date: JUL 19 2016	Cooling: _____	Date: _____
QC: _____	9-89	Date: _____	SPC (Y/N): _____	Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
100	Document Control	0.00							
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile and create labels per PPP D206-642-512	CHG 0%			DAS 21 9-89				
110	Pick Kit	0.00							
110	Packaging	0.00							
Packaging									
120	QC4- 100% Inspect kits for completeness	0.00							
120	Quality Control	0.01							

1

1

Description: FLOAT SKIDTUBE , LH/RH[illegible]